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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/995,595 | 11/29/2001 | Jiro Inoue | 216686US2 | 2708 |

22850 7590 07/22/2003

OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

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| EXAMINER |
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KIM, PETER B

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| ART UNIT | PAPER NUMBER |
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2851

DATE MAILED: 07/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/995,595

Applicant(s)

INOUE, JIRO

Examiner

Peter B. Kim

Art Unit

2851

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 22002 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(c) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 1 is rejected under 35 U.S.C. 102(a) as being anticipated by Osakabe et al.

(Osakabe) (2002/0003615).

Osakabe discloses a stage unit (11) comprising a substrate holding member (Fig. 4) which holds a substrate (W) and a substrate stage which moves two dimensionally with the substrate holding member mounted (para 0030) and on which a plurality of fiducial marks (14, 13) are arranged dispersed by each measurement sequence which uses the fiducial marks with a positional relationship between each of the marks and the substrate holding member constant (para 0059 – 0075).

Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Magome (6,160,619).

Magome discloses a stage unit (20) comprising a substrate holding member (18) which holds a substrate (W) and a substrate stage which moves two dimensionally with the substrate holding member mounted (col. 14, lines 28-36) and on which a plurality of fiducial marks (Fig. 5 and 6) are arranged dispersed by each measurement sequence which uses the fiducial marks with

Art Unit: 2851

a positional relationship between each of the marks and the substrate holding member constant (col. 17, line 47 – col. 18, line 45).

Claims 1, 3, 4, 5, 14, 15, 16 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Murakami et al. (Murakami) (5,920,378).

Murakami discloses a stage unit (31) comprising a substrate holding member (PT) which holds a substrate and a substrate stage which moves two dimensionally with the substrate holding member mounted and on which a plurality of fiducial marks (Fig. 2) are arranged dispersed by each measurement sequence which uses the fiducial marks with a positional relationship between each of the marks and the substrate holding member constant (col. 4, line 44 – col. 5, line 61). Murakami discloses plurality of fiducial marks which are arranged on a straight line passing through a center of the substrate holding member (Fig. 2). Murakami discloses a plurality of fiducial mark plates arranged on the periphery of the substrate holding member (Fig. 2 and 4), a mark detection system (60a, 60b) and a control unit (70) which performs various types measurement sequences. Murakami discloses at least two fiducial marks arranged on the plurality of fiducial mark plates (col. 7, lines 35-49).

Claims 1-19 are rejected under 35 U.S.C. 102(c) as being anticipated by Takahashi (2002/0037460).

Takahashi discloses a stage unit (WST) comprising a substrate holding member (25) which holds a substrate and a substrate stage which moves two dimensionally with the substrate holding member mounted and on which a plurality of fiducial marks (FM1-4) are arranged dispersed by each measurement sequence which uses the fiducial marks with a positional relationship between each of the marks and the substrate holding member constant (para 0070 – para

Art Unit: 2851

0102). Takahashi discloses four fiducial marks arranged in the vicinity of each vertex position of polygon containing a center of the substrate holding member (Fig. 4 and 5) Takahashi discloses plurality of fiducial marks which are arranged on a straight line passing through a center of the substrate holding member (Fig. 4). Takahashi discloses a plurality of fiducial mark plates arranged on the periphery of the substrate holding member (Fig. 4), a mark detection system (AS) and a control unit (20) which performs various types measurement sequences. Murakami discloses at least two fiducial marks arranged on the plurality of fiducial mark plates (Fig 3). Murakami discloses plurality of fiducial marks which are arranged along a first axis direction and a plurality of marks arranged in a second axis direction orthogonal to the first axis (Fig. 3). Takahashi discloses the first mark plate in which the length in the second axis direction is slightly longer than a length required to form the fiducial mark, and the second mark plate in which the length in the first axis direction is slightly longer than the length required to form the fiducial mark (see Fig. 3 where the marks are formed within the plate).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Kim whose telephone number is (703) 305-0105. The examiner can normally be reached on Monday-Thursday from 8:30 AM to 6:00 PM. The examiner can also be reached on alternate Fridays during the same hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Russ Adams can be reached on 703 308 2847. The fax phone numbers for the organization where this application or proceeding is assigned are 703 872 9318 for regular communications and 703 872 9319 for After Final communications.

Art Unit: 2851

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 306 3431.

A handwritten signature in black ink, appearing to read 'P. B. Kim', with a stylized flourish at the end.

Peter B. Kim
Patent Examiner
July 17, 2003